UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

APPLICANT(S)	Jheroen P. Dorenbosch	CONFIRMATION NO.:	7344
APPLN. NO.:	10/649,756	EXAMINER:	Phan, Huy Q
FILED:	August 26, 2003	GROUP ART UNIT:	2617
DOCKET NO.	CE10823N		
TITLE:	SYSTEM AND METHOD TO IMPROVE WLAN HANDOVER BEHAVIOR AT ENTRY/EXIT POINTS		

CERTIFICATE UNDER 37 CFR 1.8(a)	
I hereby certify that this correspondence is being electronically transmitted on the date listed below:	
Date:	December 26, 2007
Signature	/Larry G. Brown/
Typed or printed name:	Larry G. Brown

TRANSMITTAL LETTER FOR AMENDED BRIEF ON APPEAL

Mail Stop: **APPEAL BRIEF-PATENTS**
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Enclosed please find one copy of an Amended Appeal Brief filed on behalf of the applicants in the matter of the above entitled application. This Amended Brief is filed pursuant to 37 CFR § 41.37(d) in furtherance of the Notice of Appeal filed on April 5, 2006.

Concurrently with this submission, Applicants are paying the fee for a two-month Extension of Time.

The Commissioner is authorized to charge any requisite fee, or credit any overpayment to Motorola, Inc., Deposit Account No. 502117.

Respectfully submitted,

Date: December 26, 2007

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AMENDED APPEAL BRIEF

Mail Stop: **APPEAL BRIEF-PATENTS**
Commissioner for Patents
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Alexandria, VA 22313-1450

Attention: Board of Patent Appeals and Interferences

Dear Chief Administrative Patent Judge:

This Amended Appeal Brief is in response to the Notification of Non-Compliant Appeal Brief of September 25, 2007 and is in furtherance of Applicants' Notice of Appeal filed on April 5, 2006.

Concurrently with this submission, Applicants are paying the fee for a two-month Extension of Time. The Commissioner is authorized to charge any requisite fee, or credit any overpayment to Motorola, Inc., Deposit Account No. 502117.

I. REAL PARTY IN INTEREST

The real party of interest is Motorola, Inc., a Delaware corporation.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

III. STATUS OF CLAIMS

This is an appeal from the final rejection of claims 1-5, 9-12, 14-30 and 33-42 of the above-referenced application.

A. TOTAL NUMBER OF CLAIMS IN APPLICATION

There are a total of 36 claims in the application.

B. STATUS OF ALL THE CLAIMS

1. Claims allowed: none
2. Claims objected to: none
3. Claims rejected: 1-5, 9-12, 14-30 and 33-42
4. Claims canceled: 6-8, 13, 31 and 32

C. CLAIMS ON APPEAL

The claims on appeal are 1-5, 9-12, 14-30 and 33-42.

IV. STATUS OF AMENDMENTS

No amendments have been filed subsequent to the Final Rejection.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Although specification citations are inserted below in accordance with C.F.R. 41.37, these reference numerals and citations are merely examples of where support may be found in the specification for the terms used in this section of the brief. There is no intention to in any way suggest that the terms of the claims are limited to the examples in the

specification. Although, as demonstrated by the reference numerals and citations below, the claims are fully supported by the specification as required by law, it is improper under the law to read limitations from the specification into the claims. Pointing out specification support for the claim terminology, as is done here to comply with rule 41.37, does not in any way limit the scope of the claims to those examples from which they find support. Nor does this exercise provide a mechanism for circumventing the law precluding reading limitations into the claims from the specification. In short, the reference numerals and specification citations are not to be construed as claim limitations or in any way used to limit the scope of the claims.

The claimed subject matter of independent claim 1 pertains to a method that includes the step of detecting a first signal from an egress portal (302) (see page 16, lines 20-21) in which the egress portal (302) resides within a cell (104) of a wireless local area network (WLAN) and occupies a region that is smaller than the cell (see FIG. 3 and page 11, line 16 – page 12, line 10 (it is known that Bluetooth devices or electronic article surveillance points may occupy a region that is smaller than that of a WLAN cell)). The method also includes the steps of initiating, in response to detecting the first signal from the egress portal (302), a registration sequence with a second wireless communication system and conducting a present or a subsequent call via the second wireless communication system (see page 16, lines 11-16).

The claimed subject matter of independent claim 12 pertains to a method that includes the step of detecting a triggering event in which the triggering event comprises detecting a WLAN border cell (210) (see page 6, lines 5-8). The step of detecting a WLAN border cell (210) includes receiving status information from a WLAN access point (see FIG. 8) in which the status information comprises a wide area network (WAN) information

indicator and determining that a border cell indicator of the status information is set (see page 6, lines 9-13). The method further includes the step of detecting, in response to detecting the triggering event, a first signal from an electronic device that is located in proximity to an egress portal (302), and the first signal is associated with indicating passage through the egress portal (302) (see FIG. 3 and page 16, lines 5-11). The method also includes the steps of initiating, in response to detecting the first signal from the electronic device, a registration sequence with a wireless communication system and conducting one of a present and a subsequent call via the wireless communication system (see page 16, lines 11-16).

The claimed subject matter of independent claim 17 is directed to a method that includes the steps of determining that a wireless device (306), operating in a first communication system, is detecting a WLAN inner border cell (1010) of the first communication system in which the inner border cell (1010) broadcasts an inner border cell indicator and initiating a registration sequence with a second wireless communication system in response to determining that the wireless device is detecting the WLAN inner border cell (see FIG. 10; page 7, lines 14-17; and page 20, lines 10-11). The method also includes the steps of detecting a second WLAN outer border cell (1012) in which the outer border cell (1012) broadcasts an outer border cell indicator, determining that the wireless device (306) is moving from a coverage area of the first communications system to a coverage area of the second communications system in response to detecting the second WLAN outer border cell (1012) and conducting a present or a subsequent call via the second wireless communication system (see FIG. 10; page 7, lines 17-22; and page 20, line 17-22).

The claimed subject matter of independent claim 18 is directed to a method that

includes the steps of detecting a triggering event (see page 15, line 20 to page 16, line 2) and detecting a signal from an egress portal (302) in response to detecting a triggering event in which the signal indicates passage through the egress portal (302), and the egress portal (302) resides within a cell (104) of a WLAN and occupies a region that is smaller than the cell (104) (see FIG. 3 and page 11, line 16 – page 12, line 10 (it is known that Bluetooth devices or electronic article surveillance points may occupy a region that is smaller than that of a WLAN cell)). The method also includes the steps of obtaining available WAN information from a WLAN access point and scanning, in response to the detecting, for at least one WAN listed in the available WAN information (see page 18, lines 2-19).

The claimed subject matter of independent claim 20 is directed to a mobile communication device (306). The mobile communication device (306) includes at least two transceivers (504, 510) (see FIG. 5), each transceiver (504, 510) designed to operate on a separate wireless communications system, for transmitting and receiving wireless information (see FIG. 5 and page 12, lines 11-16) and a controller (518), communicatively coupled to each transceiver (504, 510), for managing the operation of the mobile communication device (306) (see FIG. 5 and page 12, line 22 to page 13, line 1). The device (306) also includes a first wireless communications system stack (608), communicatively coupled to the controller (518) (see FIG. 6), having instructions for communicating according to its respective protocol and a second wireless communications system stack (610), communicatively coupled to the controller (518) (see FIG. 6), having instructions for communicating according to its respective protocol (see page 20, line 14 to page 21, line 8).

The device of independent claim 20 further contains a means for receiving signals from an egress portal (302), the signals associated with indicating passage through the

egress portal (302) and a handover manager (614), communicatively coupled to the controller (518), the first wireless communications system stack (608), the second wireless communications system stack (610), and the means (532, 538) for receiving signals from an egress portal (302) (see FIGs. 5 and 6). The handover manager (614) is for determining, in response to determining that the means (532, 538) for receiving signals from an egress portal (302) has received at least one signal from the egress portal (302) indicating passage therethrough, when to handover from a first wireless communication system to a second wireless communication system (see page 15, line 20 to page 16, line 9). In addition, the egress portal (302) resides within a cell (104) of a WLAN and occupies a region that is smaller than the cell (104) (see FIG. 3 and page 11, line 16 – page 12, line 10 (it is known that Bluetooth devices or electronic article surveillance points may occupy a region that is smaller than that of a WLAN cell)).

The claimed subject matter of independent claim 23 pertains to a mobile communication system. The system includes a structure (108) having at least one entry/exit point (212) and at least one egress portal (302) located at the at least one entry/exit point (212), the egress portal (302) for transmitting signals to a mobile communications device (306) in which the signals are associated with indicating passage through the at least one egress portal (302) (see FIGs. 3 and 4 and page 11, line 16 to page 12, line 3). The system also includes at least one cell (104) of a WLAN communications system, the cell (104) providing communication coverage within the structure (108) in which the egress portal (302) resides within the cell (104) of the WLAN communications system and occupies a region that is smaller than the cell (104) (see FIGs. 3 and 4 and page 11, line 16 – page 12, line 10 (it is known that Bluetooth devices or electronic article surveillance points may occupy a region that is smaller than that of a

WLAN cell)).

The system further includes at least one coverage cell (102) of a second communications system, overlapping the at least one cell (104) of the WLAN, for providing communication coverage outside the structure (108) (see FIGs. 3 and 4 and page 11, lines 16-18). At least one mobile subscriber device (306) can be communicatively coupled with the at least one cell (104) of the WLAN communications system and the at least one cell (102) of the second communications system (see FIGs. 3 and 5 and page 12, lines 11-16). The device (306) is for determining, in response to determining that the device (306) has received the signals from the at least one egress portal (302) indicating passage therethrough, when to handover from one wireless communication system to the second wireless communication system (see page 11, line 23 to page 12, line 3).

The claimed subject matter of independent claim 25 is directed to a computer readable medium comprising computer instructions (see page 23, line 22 to page 24, line 3). The computer instructions are for performing the step of detecting a first signal from an egress portal (302), the first signal associated with indicating passage through the egress portal (302) in which the egress portal (302) resides within a cell (104) of a WLAN and occupies a region that is smaller than the cell (104) (see FIG. 3 and page 11, line 16 – page 12, line 10 (it is known that Bluetooth devices or electronic article surveillance points may occupy a region that is smaller than that of a WLAN cell)). The instructions are also for performing the steps of initiating, in response to detecting the first signal from the egress portal (302), a registration sequence with a second wireless communication system and conducting a present or a subsequent call via the second wireless communication system (see page 16, lines 11-16).

The claimed subject matter of independent claim 30 is directed to a computer

readable medium comprising computer instructions (see page 23, line 22 to page 24, line 3). The computer instructions are for performing the steps of determining that a wireless device (306), operating in a first communication system, is detecting a WLAN inner border cell (1010) of the first communication system in which the inner border cell (1010) broadcasts an inner border cell indicator and initiating a registration sequence with a second wireless communication system in response to determining that the wireless device (306) is detecting a WLAN inner border cell (1010) (see FIG. 10; page 7, lines 14-17; and page 20, lines 10-11). The instructions are also for performing the steps of detecting a second WLAN outer border cell (1012) in which the outer border cell (1012) broadcasts an outer border cell indicator, determining that the wireless device (306) is moving from a coverage area of the first communications system to a coverage area of the second communications system in response to detecting the second WLAN outer border cell (1012) and conducting a present or a subsequent call via the second wireless communication system (see FIG. 10; page 7, lines 17-22; and page 20, line 17-22).

The claimed subject matter of independent claim 39 pertains to - at an egress portal (302) - a method to improve handover behavior of a mobile device (306) between a WLAN containing a plurality of WLAN access points and a WAN containing a plurality of WAN cells (102), the egress portal (302) being located at an entry/exit point (212) of the WLAN and not including a WLAN access point or a cell (102) for a WAN (see FIGs. 3 and 4 and page 11, lines 16-22). The method includes the steps of conducting a call via a first network, the first network being either the WLAN or the WAN and detecting by the egress portal (302) a movement of the mobile device (306) from a coverage area of the first network to a coverage area of a second network, the second network being the other one of the WLAN or the WAN (see page 5, lines 14-22). In response to detecting the movement of the mobile

device (306), the method can include the step of advising the mobile device (306) to switch to the second network (see page 5, line 22 to page 6, line 3). The method can also include the step of conducting, in response to advising the mobile device (306) to switch to the second network, the call via the second network (see page 6, lines 1-3).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Whether claims 1-5, 9-12, 14, 15, 17, 25-30, 33, 34 and 37-42 are patentable under 35 U.S.C. 102(e) over U.S. Patent Application Publication No. 2005/0079864 to Johnson, et al. (Johnson).

Whether claim 16 is patentable under 35 U.S.C. 103(a) over Johnson in view of U.S Patent Application Publication No. 2003/ 0119481 to Haverinen (Haverinen).

Whether claims 35 and 36 are patentable under 35 U.S.C. 103(a) over Johnson in view of U.S Patent Application Publication No. 2004/ 0137902 to Chaskar, et al. (Chaskar).

Whether claims 18-24 are patentable under 35 U.S.C. 103(a) over U.S Patent Application Publication No. 2003/ 0134636 to Sundar, et al. (Sundar) in view of Chaskar.

VII. ARGUMENT

A. The recitations of Johnson do not render the invention of claims 1-5, 9-12, 14, 15, 17, 25-30, 33, 34 and 37-42 unpatentable.

A brief summary of the Johnson reference may be helpful here. Johnson describes a private radio telecommunication system that is arranged to support the handout of calls from the private system to an external cellular radio telecommunication system (see Abstract). In particular, the private system includes a base station controller that detects when a mobile unit within the private system with a call in progress – the call in progress not involving the external system – is about to move from the private system into the external system (see Abstract). To facilitate the handout of the call from the private system to the

external system, the base station controller of the private system sets up a "phantom" call through the external system (see Abstract). The phantom call is between the same parties as the call in progress so that the phantom call takes over from the call in progress as the mobile subscriber unit leaves the private system (see paragraph 0008).

The private system includes a gateway cell and private cells in which the gateway cell is entered in the public network neighbor cell list and the private cells are neighbors to the gateway cell only (see paragraph 0015). Movement of the mobile unit into the gateway cell from the private cell, which is detected through diminishing private network signals or increasing public network signals, indicates that the unit is moving from the private network to the public network (see paragraph 0019). This process prompts the phantom call (see paragraph 0019).

Part of setting up the phantom call includes a mobile switching center (MSC) of the public network signaling the base station controller of the private network in which the MSC of the public network believes that it is signaling the second mobile unit (MS2) of a two-party call (see paragraph 0019). Johnson recites, "The [public] network knows to page MS2 here, since the private network will have informed the public network of this at the initial registration procedure, when MS2 was first switched on in the private network" (see paragraph 0019). In other words, when the mobile units are powered on in the private network, well in advance of any indication that they may be moving outside the private network, the mobile units are registered with the public network.

It is well settled that in order for a claim to be anticipated under 35 U.S.C. § 102, each and every element of the claimed invention must be disclosed in a single prior art reference. Orthokinetics, Inc. v. Safety Travel Chairs. Inc., 806 F.2d 1565, 1574 (Fed. Cir. 1986). Whether the reference discloses every element of the invention, and also whether

the reference and the claimed invention are the same, is to be determined by considering how persons of ordinary skill in the art interpret the reference. Scripps Clink & Research Fdm. v. Genentech. Inc., 927 F.2d 1565, 1576 (Fed. Cir. 1991).

Independent claims 1 and 25 recite the limitation that the egress portal resides within a cell of a WLAN and occupies a region that is smaller than the cell. Johnson simply does not disclose such a feature. In particular, it appears that the Examiner has attempted to equate the gateway cell of Johnson with the claim element "egress portal" of claims 1 and 25. For example, in rejecting claim 9, the Examiner contends that the egress portal comprises a Bluetooth access point because it includes "'basestations close to the physical entrance of the building'" (quoting paragraph 0015 of Johnson on page 5-6 of the Final Office Action of December 15, 2005). Johnson notes that these basestations are configured to form a gateway cell (see paragraph 0015). The gateway cell of Johnson is a cell of a private WLAN (see paragraphs 0014-0015), which is how one of skill in the art would interpret a gateway cell as it is described, and Johnson never gives any indication that it resides within a cell of a WLAN and occupies a region that is smaller than the cell.

Independent claims 1, 12 and 25 recite the limitation that a registration sequence is initiated in response to detecting a first signal from the egress portal or an electronic device located in proximity with the egress portal. Johnson does not describe such a feature. Specifically, in Johnson and as noted above, the mobile units are registered with the public network when they are first powered on in the private network. This process assumes that the mobile units will always exit the private network after being powered up, which may not necessarily be the case. In contrast, the registration sequence in the present invention is not initiated until there is a strong indication that the mobile unit is about to exit the WLAN, which limits the use of processing resources and current drain on the battery.

Independent claim 39 recites that the movement of the mobile device from a coverage area of the first network to a coverage area of the second network is detected by the egress portal. In contrast, movement of the mobile unit from the private cell to the gateway cell in Johnson is detected by the handover agent, which strictly relies on changes in signal strength to do so (see paragraph 0019). The claimed invention is far more flexible because the egress portal, as a result of its ability to be strategically positioned near an exit, can facilitate the use of a triggering event to cause the mobile unit to begin searching for the first signal from the egress portal as part of its registration sequence. Johnson never mentions anything about placing the handover agent near an exit or entry point.

Independent claims 17 and 30 recite the elements that a wireless device detects a WLAN inner border cell of a first communication system in which the inner border cell broadcasts an inner border cell indicator and in response, initiates a registration sequence with a second wireless communication system. The claims also recite the detection of a second WLAN outer border cell that broadcasts an outer border cell indicator. Applicants contend that none of these features are shown in Johnson.

Johnson mentions nothing about the private or public cells (including the gateway cell) broadcasting inner or outer border cell indicators. In fact, not only is such a concept not contemplated by Johnson, Johnson actually teaches away from it because Johnson relies exclusively on signal strength to determine when a mobile unit is moving from the private network to the public network. To argue otherwise contradicts the only method that Johnson uses to determine when the mobile unit is moving from the private network to the public network. In addition, the Examiner attempts to equate the gateway cell of Johnson with the inner border cell of claims 17 and 30 (see pages 9 and 12 of the Final Office Action of December 15, 2005). In accordance with the description above, Johnson does not

describe initiating a registration sequence with a second wireless communication system when the wireless device detects an inner border cell, as the mobile unit in Johnson initiates a registration sequence with the public network merely when the mobile unit is powered on in the private network.

B. The recitations of Johnson and Haverinen do not render the invention of claim 16 unpatentable.

As explained above in Section VII A, Johnson does not describe the limitation of claim 12 that a registration sequence is initiated in response to detecting a first signal from the egress portal or an electronic device located in proximity with the egress portal. Dependent claim 16 depends from claim 12, through claims 14 and 15, and is thus patentable over the Johnson and Haverinen combination.

C. The recitation of Johnson and Chaskar do not render the invention of claims 35 and 36 unpatentable.

As described above in Section VII A, Johnson does not teach the elements that a wireless device detects a WLAN inner border cell of a first communication system in which the inner border cell broadcasts an inner border cell indicator and in response, initiates a registration sequence with a second wireless communication system, as recited in independent claims 17 and 30. Claims 17 and 30 also recite the limitation of the detection of a second WLAN outer border cell that broadcasts an outer border cell indicator, which is also not taught by Johnson. Dependent claims 35 and 36 depend from claims 17 and 30, respectively, and are thus patentable over the combination of Johnson and Chaskar.

D. The recitations of Sundar and Chaskar do not render the invention of claims 18-24 unpatentable.

A brief summary of the Sundar and Chaskar references may be helpful here. Sundar discloses a method, system and apparatus for a mobile station to sense and select a wireless local area network (WLAN) or a wide area mobile wireless network (WWAN) (see Abstract). In particular, the WWAN determines when a mobile unit may enter the coverage area of a WLAN service in a building (see paragraph 0069). The WWAN then signals the mobile unit to begin sensing for the WLAN (see paragraph 0069). Upon successful detection of a beacon from an access point (AP) of the WLAN, the mobile unit deregisters from the WWAN and registers with a mobile switching center (MSC) serving the WLAN (see paragraph 0069). As it roams through the WLAN, the mobile unit will continue to sense the RF energy strength of the WWAN (see paragraph 0069). If it detects that the WLAN RF signal strength decreases below a threshold value and the WWAN strength is above a threshold value, the mobile station will initiate a registration process with the WWAN (see paragraph 0069).

Chaskar describes a method and apparatus for controlling handover between a first technology network and a second technology network (see Abstract). In particular, the first network is a WLAN, and the second network is a cellular network (see FIG. 2). The WLAN includes cells inside a building that are located near entry/exit points of the building and cells inside the building that are positioned away from such points (see FIG. 2). The access points of the cells that are near the entry/exit points broadcast border bits indicating such, while the access points of the remaining cells broadcast border bits noting that they are not near entry/exit points (see paragraph 0045). Through these border bits, a mobile device can determine when to perform a handoff procedure to the cellular network (see paragraphs 0044-0045). Several points of entry/exit of a building are shown in FIG. 2.

Independent claims 18, 20 and 23 include the claim element that the egress portal

resides within a cell of a WLAN and occupies a region that is smaller than the cell. The Examiner correctly points out that Sundar does not teach that the egress portal but argues that Chaskar describes such an element (see pages 3, 16, 17 and 19 of the Final Office Action of December 15, 2005). In particular, the Examiner contends that the coverage areas of the WLAN access points of Chaskar are equivalent to the egress portals of the present invention, specifically the coverage areas near the entry/exit points of the building of FIG. 2 (see page 3 of the Final Office Action of December 15, 2005). There is no contention from the Examiner, however, that these coverage areas are nothing more than WLAN cells, as one of skill in the art would appreciate. As such, the coverage areas of Chaskar simply cannot read on the claims of the present invention, because the coverage areas of Chaskar do not reside within a cell of a WLAN and occupy a region that is smaller than the cell. Applicants respectfully submit that this aspect of the claims is being overlooked in the Examiner's objections.

Conclusion

Applicants contend that none of the cited prior art references describe the subject matter presented in the claims of the present invention. For the reasons set forth above, the claims on appeal present patentable subject matter such that reversal of the rejection is appropriate.

Respectfully submitted,

Date: December 26, 2007

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VIII. CLAIMS APPENDIX

1. (Previously Presented) A method comprising:

detecting a first signal from an egress portal, the first signal associated with indicating passage through the egress portal, wherein the egress portal resides within a cell of a wireless local area network and occupies a region that is smaller than the cell;

initiating, in response to detecting the first signal from the egress portal, a registration sequence with a second wireless communication system; and

conducting a present or a subsequent call via the second wireless communication system.

2. (Previously Presented) The method of claim 1, further comprising:

detecting a second signal from the egress portal; and

determining, based upon an order of receiving the first signal and the second signal, that a wireless device is moving from the coverage area of the wireless local area network to a coverage area of the second wireless communication system, wherein the step of initiating is performed in response to determining that the wireless device is moving from the coverage area of the wireless local area network to the coverage area of the second wireless communication system.

3. (Previously Presented) The method of claim 1, wherein the second wireless communication system is a wide area network (WAN).

4. (Previously Presented) The method of claim 1, wherein the wireless local area network (WLAN) uses at least one protocol of IEEE Standard 802.11 and Bluetooth.

5. (Previously Presented) The method of claim 3, wherein the wide area network (WAN) uses code division multiple access (CDMA), wideband code division multiple access (WCDMA), time division multiple access (TDMA), global system for mobile communications (GSM) or integrated digital enhanced network (iDEN).

6. (Canceled)

7. (Canceled)

8. (Canceled)

9. (Previously Presented) The method of claim 1, wherein the egress portal comprises a Bluetooth access point, an infrared transmitter, or an electronic security detection device.

10. (Previously Presented) The method of claim 1, wherein the detecting a first signal step is performed in response to detecting a triggering event.

11. (Previously Presented) The method of claim 10, wherein the triggering event comprises detecting a wireless local area network border cell, detecting a degradation in signal quality, or detecting a start of a call.

12. (Previously Presented) A method comprising:

detecting a triggering event, the triggering event comprising detecting a wireless local area network border cell, wherein the step of detecting a wireless local area network (WLAN) border cell comprises:

receiving status information from a WLAN access point, wherein the status information comprises a wide area network (WAN) information indicator; and

determining that a border cell indicator of the status information is set;

detecting, in response to detecting the triggering event, a first signal from an electronic device that is located in proximity to an egress portal, the first signal associated with indicating passage through the egress portal;

initiating, in response to detecting the first signal from the electronic device, a registration sequence with a wireless communication system; and

conducting one of a present and a subsequent call via the wireless communication system.

13. (Canceled)

14. (Previously Presented) The method of claim 12, further comprising:

determining that the WAN information indicator is set;

obtaining available WAN information from the WLAN access point; and

using the available WAN information to conduct communications with a wide area network.

15. (Previously Presented) The method of claim 14, wherein the available WAN information comprises service providers, Radio Access Technologies (RAT's), channel information, timing information, or Pilot strength measurements.

16. (Original) The method of claim 15, wherein the available WAN information comprises information for at least two wide area networks.

17. (Previously Presented) A method comprising:

determining that a wireless device, operating in a first communication system is detecting a wireless local area network inner border cell of the first communication system, wherein the inner border cell broadcasts an inner border cell indicator;

initiating a registration sequence with a second wireless communication system in response to determining that the wireless device is detecting the wireless local area network inner border cell;

detecting a second wireless local area network outer border cell, wherein the outer border cell broadcasts an outer border cell indicator;

determining that the wireless device is moving from a coverage area of the first communications system to a coverage area of the second communications system in response to detecting the second wireless local area network outer border cell; and

conducting a present or a subsequent call via the second wireless communication system.

18. (Previously Presented) A method comprising:

detecting a triggering event;

detecting a signal from an egress portal in response to detecting a triggering event, the signal associated with indicating passage through the egress portal, wherein the egress portal resides within a cell of a wireless local area network and occupies a region that is smaller than the cell;

obtaining available wide area network information from a wireless local area network access point; and

scanning, in response to the detecting, for at least one wide area network listed in the available wide area network information.

19. (Previously Presented) The method of claim 18, wherein the triggering event comprises detecting a wireless local area network border cell, detecting a degradation in signal quality, or detecting a start of a call.

20. (Previously Presented) A mobile communication device comprising:

at least two transceivers, each transceiver designed to operate on a separate wireless communications system, for transmitting and receiving wireless information;

a controller, communicatively coupled to each transceiver, for managing the operation of the mobile communication device;

a first wireless communications system stack, communicatively coupled to the controller, having instructions for communicating according to its respective protocol;

a second wireless communications system stack, communicatively coupled to the controller, having instructions for communicating according to its respective protocol;

a means for receiving signals from an egress portal, the signals associated with indicating passage through the egress portal; and

a handover manager, communicatively coupled to the controller, the first wireless communications system stack, the second wireless communications system stack, and the means for receiving signals from an egress portal, the handover manager for determining, in response to determining that the means for receiving signals from an egress portal has received at least one signal from the egress portal indicating passage therethrough, when to handover from a first wireless communication system to a second wireless communication system, wherein the egress portal resides within a cell of a wireless local area network and occupies a region that is smaller than the cell.

21. (Original) The mobile communication device of claim 20, wherein the at least two transceivers share common hardware and software.

22. (Previously Presented) The mobile communication device of claim 20, wherein the means for receiving signals from an egress portal comprises a Bluetooth transceiver, an infrared sensor, or an electronic security detection device.

23. (Previously Presented) A mobile communication system comprising:

a structure having at least one entry/exit point;

at least one egress portal located at the at least one entry/exit point, the egress portal for transmitting signals to a mobile communications device, wherein the signals are associated with indicating passage through the at least one egress portal;

at least one cell of a wireless local area network communications system, the cell providing communication coverage within the structure, wherein the egress portal resides within the cell of the wireless local area network communications system and occupies a region that is smaller than the cell; and

at least one coverage cell of a second communications system, overlapping the at least one cell of the wireless local area network, for providing communication coverage outside the structure;

wherein at least one mobile subscriber device can be communicatively coupled with the at least one cell of the wireless local area network communications system~~,~~ and the at least one cell of the second communications system, the device for determining, in response to determining that the device has received the signals from the at least one egress portal indicating passage therethrough, when to handover from one wireless communication system to the second wireless communication system.

24. (Previously Presented) A mobile communication system of claim 23 further comprising:

at least one border cell of the wireless local area network communications system, the border cell located at the entry/exit point of the structure, providing a transition region between the wireless local area network communications system and the second communications system.

25. (Previously Presented) A computer readable medium comprising computer instructions for performing the steps of:

detecting a first signal from an egress portal, the first signal associated with indicating passage through the egress portal, wherein the egress portal resides within a cell of a wireless local area network and occupies a region that is smaller than the cell;

initiating, in response to detecting the first signal from the egress portal, a registration sequence with a second wireless communication system; and

conducting a present or a subsequent call via the second wireless communication system.

26. (Previously Presented) The computer readable medium of claim 25, further comprising computer instructions for:

detecting a second signal from the egress portal; and

determining, based upon an order of receiving the first signal and the second signal, that a wireless device is moving from the coverage area of the wireless local area network to a coverage area of the second wireless communication system, wherein the step of initiating is performed in response to determining that the wireless device is moving from the coverage area of the wireless local area network to the coverage area of the second communication system.

27. (Previously Presented) The computer readable medium of claim 25, wherein the egress portal comprises a Bluetooth access point, an infrared transmitter or an electronic security detection device.

28. (Previously Presented) The computer readable medium of claim 25, wherein the step of detecting a first signal is performed in response to detecting a triggering event.

29. (Previously Presented) The computer readable medium of claim 28, wherein the triggering event comprises detecting a wireless local area network border cell, detecting a degradation in signal quality, or detecting a start of a call.

30. (Previously Presented) A computer readable medium comprising computer instructions for performing the steps of:

determining that a wireless device, operating in a first communication system is detecting a wireless local area network inner border cell of the first communication system, wherein the inner border cell broadcasts an inner border cell indicator;

initiating a registration sequence with a second wireless communication system in response to determining that the wireless device is detecting a wireless local area network inner border cell;

detecting a second wireless local area network outer border cell, wherein the outer border cell broadcasts an outer border cell indicator;

determining that the wireless device is moving from a coverage area of the first communications system to a coverage area of the second communications system in response to detecting the second wireless local area network outer border cell; and

conducting a present or a subsequent call via the second wireless communication system.

31. (Cancelled)

32. (Cancelled)

33. (Previously Presented) The method according to claim 1, wherein the first signal is only for indicating passage through the egress portal.

34. (Previously Presented) The method according to claim 2, wherein the first signal comprises a wireless local area network signal substantially transmitted to an interior side of the egress portal and wherein the second signal comprises a wireless local area network signal substantially transmitted to an exterior side of the egress portal, the second signal being different from the first signal.

35. (Previously Presented) The method according to claim 17, wherein detecting the second wireless local area network border cell is done within a predetermined amount of time.

36. (Previously Presented) The computer readable medium according to claim 30, wherein detecting the second wireless local area network border cell is done within a predetermined amount of time.

37. (Previously Presented) The method according to claim 17, wherein conducting the present or the subsequent call via the second wireless communication system is performed in response to determining that the wireless device is moving from the coverage area of the first communications system to the coverage area of the second communications system.

38. (Previously Presented) The computer readable medium according to claim 30, wherein conducting the present or the subsequent call via the second wireless communication system is performed in response to determining that the wireless device is moving from the coverage area of the first communications system to the coverage area of the second communications system.

39. (Previously Presented) At an egress portal, a method to improve handover behavior of a mobile device between a wireless local area network (WLAN) containing a plurality of WLAN access points and a wireless wide area network (WAN) containing a plurality of WAN cells, the egress portal being located at an entry/exit point of the WLAN and not including a WLAN access point or a cell for a WAN, the method comprising:

conducting a call via a first network, the first network being either the WLAN or the WAN;

detecting by the egress portal a movement of the mobile device from a coverage area of the first network to a coverage area of a second network, the second network being the other one of the WLAN or the WAN;

in response to detecting the movement of the mobile device, advising the mobile device to switch to the second network; and

conducting, in response to advising the mobile device to switch to the second network, the call via the second network.

40. (Previously Presented) The method according to claim 1, further comprising conducting a present or prior call via the wireless local area network.

41. (Previously Presented) The method according to claim 12, further comprising conducting a present or prior call via the wireless local area network.

42. (Previously Presented) The method according to claim 17, wherein the inner border cell is substantially present within the interior of a structure and the outer border cell is substantially present outside the structure.

IX. EVIDENCE APPENDIX

None

X. RELATED PROCEEDINGS APPENDIX

None